

CLAIM AMENDMENTS

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A hybrid gene cDNA library having a plurality of plasmid vectors in which each vector comprises:

a DNA molecule with at least one selectable marker sequence; and

a sequence encoding a hybrid protein region, ~~wherein~~ the hybrid protein region comprises, including:

a) a regulatable DNA sequence,

b) a multiple cloning site ~~that does not encode~~ lacking a translational termination sequence, ~~which is placed~~ the multiple cloning site located immediately 3' to the regulatable DNA sequence,

a cDNA molecule having a 5' untranslated region and a translation initiation codon, the cDNA molecule inserted in the multiple cloning site; and

e) a DNA sequence encoding at least one GAL4 common peptide and ~~not containing~~ lacking a translation initiation codon, ~~which is placed~~ the DNA sequence located 3' to the multiple cloning site, and

~~and wherein the each vector of the library additionally comprises a single cDNA molecule inserted at the multiple cloning site wherein each of said cDNA molecules is obtained from a cDNA population generated using random primers~~

a sequence which encodes a transcriptional termination sequence placed immediately 3' to the DNA sequence encoding at least one GAL 4 common peptide;

wherein the plurality of plasmid vectors contain a plurality of cDNA molecules generated using random primers and enriched for 5' cDNA from represented genes as compared to cDNA generated using polyT primers;

wherein the hybrid protein region lacks a translation initiation codon 5' of the cDNA;

wherein at least two of the plurality of plasmid vectors contain different cDNA molecules; and

wherein at least one of the plurality of plasmid vectors is operable in a GAL4 yeast two-hybrid assay.

2 (Original) The hybrid gene cDNA library of claim 1 wherein each vector additionally comprises one or more origins of replication active in bacteria cells.

3. (Original) The hybrid gene cDNA library of claim 1, wherein each vector additionally comprises one or more origins of replication active in yeast cells.

4. (Original) The hybrid gene cDNA library of claim 1, wherein the hybrid protein region additionally comprises a sequence which encodes a transcriptional termination sequence placed immediately 3' to the DNA sequences encoding at least one common peptide.

5. (Currently Amended) The hybrid gene cDNA library of claim 1, wherein the regulatable DNA sequence **is comprises** the rat Glucocorticoid Response Element.

6. (Currently Amended) The hybrid gene cDNA library of claim 1, wherein the regulatable DNA sequence **is comprises** an Estrogen Response Element.

7. (Currently Amended) The hybrid gene cDNA library of claim 1, wherein the common peptide ~~is encoded by a DNA molecule comprising sequences encoding~~ **comprises** all or portions of the GAL4 yeast transcriptional activator and six successive histidine residues.

8. (Currently Amended) The hybrid gene cDNA library of claim 1, wherein the common peptide ~~is encoded by a DNA molecule comprising sequences encoding~~ **comprises** all or portions of the GAL4 yeast transcriptional activator and a nuclear localization sequence from the SV40 virus.

9. (Cancelled)

10. (Original) The hybrid gene cDNA library of claim 1, wherein each of the vectors additionally comprises one or more origins of replication active in yeast cells and one or more origins of replication active in bacterial cells, wherein at least one yeast origin of replication is derived from the natural 2-micron yeast plasmid.

11. (Currently Amended) The hybrid gene cDNA library of claim 1, wherein the selectable marker sequences **are comprise** the bacterial ampicillin resistance gene and the yeast TRP 1 nutritional auxotrophy gene.

12. (Currently Amended) The hybrid gene cDNA library of claim 1, wherein the selectable marker sequences **are comprise** the bacterial kanamycin resistance gene and the yeast URA3 nutritional auxotrophy gene.

13. (Original) The hybrid gene cDNA library of claim 4, wherein the transcriptional termination sequence is derived from the yeast ADH 1 gene.

14. – 22. (Cancelled).

23. (New) The hybrid gene cDNA library of claim 1, wherein the common peptide comprises all or portions of the GAL4 yeast transcriptional activator.

24. (New) The hybrid gene cDNA library of claim 1, wherein the common peptide comprises all or portions of the GAL4 DNA-binding domain.

25. (New) A plasmid vector comprising:
at least one selectable marker sequence; and
a sequence encoding a hybrid protein region, the hybrid protein region including:
a regulatable DNA sequence,
a multiple cloning site lacking a translational termination sequence, the
multiple cloning site located immediately 3' to the regulatable DNA sequence,
a cDNA molecule having a 5' untranslated region and a translation initiation
codon, the cDNA molecule inserted in the multiple cloning site,

a DNA sequence encoding at least one GAL4 common peptide and lacking a translation initiation codon, the DNA sequence located 3' to the multiple cloning site, and

a sequence which encodes a transcriptional termination sequence placed immediately 3' to the DNA sequence encoding at least one GAL 4 common peptide;

wherein the plurality of plasmid vectors contain a plurality of cDNA molecules generated using random primers and enriched for 5' cDNA from represented genes as compared to cDNA generated using polyT primers;

wherein the hybrid protein region lacks a translation initiation codon 5' of the cDNA;
and

wherein the plasmid vector is operable in a GAL4 yeast two-hybrid assay.

26. (New) The plasmid vector of claim 25 further comprising one or more origins of replication active in bacteria cells.

27. (New) The plasmid vector of claim 25, further comprising one or more origins of replication active in yeast cells.

28. (New) The plasmid vector of claim 25, wherein the hybrid protein region further comprises a sequence which encodes a transcriptional termination sequence placed immediately 3' to the DNA sequence encoding at least one common peptide.

29. (New) The plasmid vector of claim 25, further comprising one or more origins of replication active in yeast cells and one or more origins of replication active in bacterial cells, wherein at least one yeast origin of replication is derived from the natural 2-micron yeast plasmid.

30. (New) The plasmid vector of claim 25, wherein the common peptide comprises all or portions of the GAL4 yeast transcriptional activator.

31 (New) The plasmid vector of claim 25, wherein the common peptide comprises all or portions of the GAL4 DNA-binding domain.

32. (New) A plasmid vector comprising:

at least one selectable marker sequence; and
a sequence encoding a hybrid protein region; the hybrid protein region including:
a regulatable DNA sequence,
a multiple cloning site lacking a translational termination sequence, the
multiple cloning site located immediately 3' to the regulatable DNA sequence,
a cDNA molecule having a 5' untranslated region, a translation initiation
codon, and a sequence encoding a protein region operable to bind another protein in a yeast-
two hybrid assay, the cDNA molecule inserted in the multiple cloning site,
a DNA sequence encoding at least one GAL4 common peptide and lacking a
translation initiation codon, the DNA sequence located 3' to the multiple cloning site, and
a sequence which encodes a transcriptional termination sequence placed
immediately 3' to the DNA sequence encoding at least one GAL 4 common peptide;
wherein the plurality of plasmid vectors contain a plurality of cDNA molecules
generated using random primers and enriched for 5' cDNA from represented genes as
compared to cDNA generated using polyT primers;
wherein the hybrid protein region lacks a translation initiation codon 5' of the cDNA;
and
wherein the plasmid vector is operable in a GAL4 yeast two-hybrid assay.